

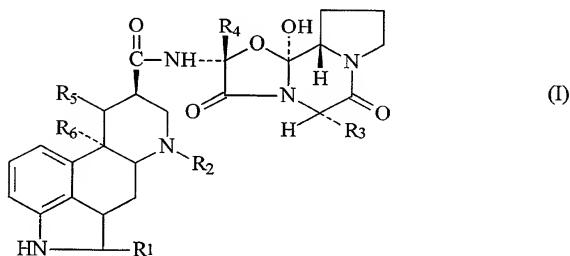
What is Claimed is:

1. A method of improving bioavailability of ergot derivatives administered using sustained-release delivery systems comprising combining an ergot derivative or mixture thereof with a pharmaceutically acceptable hydrophilic swelling agent or mixture thereof and one or more pharmaceutically acceptable excipients.

2. The method according to Claim 1, wherein the bioavailability is at least equal to the bioavailability of the ergot derivative or mixture thereof administered using a conventional drug delivery system.

3. The method according to Claim 1, wherein the bioavailability is at least 25% higher than the bioavailability of the ergot derivative or mixture thereof administered using a conventional drug delivery system.

4. The method according to Claim 2, wherein the ergot derivative has the formula



wherein

- 5 R₁ is hydrogen or halogen,
- R₂ is hydrogen or C₁-C₄ alkyl,
- R₃ is isopropyl, sec.-butyl, isobutyl or benzyl,
- R₄ is methyl, ethyl, isopropyl, and mixtures thereof, and either
- R₅ is hydrogen and
- 10 R₆ is hydrogen or methoxy, or
- R₅ and R₆ together is an additional bond, and mixtures thereof.

5. The method according to Claim 4, wherein the ergot derivative is α -dihydroergocryptine.

6. The method according to Claim 1, wherein the hydrophilic swelling agent is selected from the group consisting of methylcellulose, carboxymethylcellulose, hydroxypropylmethylcellulose, polyvinyl alcohols, polyoxyethylene glycols and poloxamers and mixtures thereof.

7. The method according to Claim 1, wherein the one or more pharmaceutically acceptable excipients is selected from the group consisting of lubricants, suspending agents, binders, diluents, flavorants, colorants, dispersing agents and wetting agents.

8. The method according to Claim 1, wherein the ratio of ergot derivative to hydrophilic swelling agent is about 1:0.5 to about 1:10.

9. The method according to Claim 5, wherein the ratio of α -dihydroergocryptine to hydrophilic swelling agent is about 1:0.5 to about 1:5.

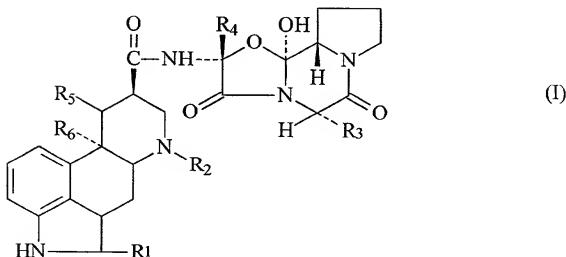
10. The method according to Claim 1, wherein about 5 to about 80 mg of ergot derivative is combined.

11. A sustained-release pharmaceutical composition comprising:
an ergot derivative or mixture thereof;
a pharmaceutically acceptable swelling agent or mixture thereof; and
one or more pharmaceutically acceptable excipients;

5 said composition having a bioavailability at least equal to the bioavailability of the ergot derivative or mixture thereof administered using a conventional drug delivery system.

12. The composition according to Claim 11, wherein the bioavailability is at least 25% higher than the bioavailability of the ergot derivative or mixture thereof administered using a conventional drug delivery system.

13. The composition according to Claim 11, wherein the ergot derivative has the formula



wherein

5 R₁ is hydrogen or halogen,
R₂ is hydrogen or C₁ – C₄ alkyl,
R₃ is isopropyl, sec.-butyl, isobutyl or benzyl,
R₄ is methyl, ethyl, isopropyl, and mixtures thereof, and either
R₅ is hydrogen and
10 R₆ is hydrogen or methoxy, or
R₅ and R₆ together is an additional bond, and mixtures thereof.

14. The composition according to Claim 13, wherein the ergot derivative is α -dihydroergocryptine.

15. The composition according to Claim 11, wherein the hydrophilic swelling agent is selected from the group consisting of methylcellulose, carboxymethylcellulose, hydroxypropylmethylcellulose, polyvinyl alcohols, polyoxyethylene glycols and poloxamers and mixtures thereof.

16. The composition according to Claim 11, wherein the one or more pharmaceutically acceptable excipients is selected from the group consisting of lubricants, suspending agents, binders, diluents, flavorants, colorants, dispersing agents and wetting agents.

17. The composition according to Claim 11, wherein the ratio of ergot derivative to hydrophilic swelling agent is about 1:0.5 to about 1:10.

18. The composition according to Claim 14, wherein the ratio of α -dihydroergocryptine to hydrophilic swelling agent is about 1:0.5 to about 1:5.

19. The composition according to Claim 11, wherein the ergot derivative is present in the amount of about 5 to about 80 mg.